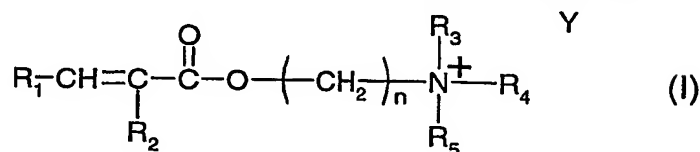


Claims

1. A copolymer derived from the polymerization of  
(a) at least one cationic monomer of formula (I),



wherein

R<sub>1</sub> is hydrogen or methyl,

R<sub>2</sub> is hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl,

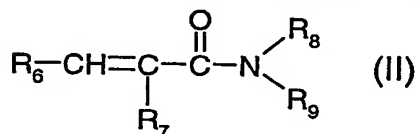
R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are independently from each other hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl,

n is a integer from 1 – 5, and

Y is a counterion,

and

(b) at least one monomer of formula (II)



wherein

R<sub>6</sub> signifies hydrogen or methyl, and

R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub> signify independently from each other hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl,

with the proviso that at least one of the substituents R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub> is

C<sub>1</sub>-C<sub>4</sub>alkyl,

and

(c) optionally at least one cross-linking agent, which contains at least two ethylenically unsaturated moieties.

2. A copolymer according to Claim 1 characterized in that it consists of

20 – 95 wt-% of at least one monomer of formula (I) and of

5 – 50 wt-% of at least one monomer of formula (II).

3. A copolymer according to Claim 1 or 2 characterized in that it consists of

40 – 90 wt-% of at least one monomer of formula (I) and of

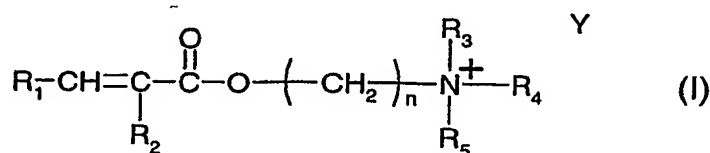
10 – 40 wt-% of at least one monomer of formula (II).

4. A copolymer according to anyone of the preceding claims characterized in that the copolymer comprises 50 – 500 ppm, preferably 100 – 300 ppm of at least one cross-linking agent based on the total amount of the copolymer.

5. A copolymer according to anyone of the preceding claims characterized in that  
 $R_1$  is hydrogen or methyl, more preferably hydrogen,  
 $R_2$  is hydrogen or methyl, more preferably hydrogen,  
 $R_3$ ,  $R_4$  and  $R_5$  are independently from each other hydrogen or methyl, more preferably methyl,  
 $n$  is an integer from 1 – 4, and  
 $Y$  is Cl; Br; I; hydrogensulfate or methosulfate.

6. A copolymer according to anyone of the preceding claims characterized in that  
 $R_6$  signifies hydrogen or methyl, more preferably hydrogen,  
 $R_7$  signifies hydrogen or methyl, more preferably hydrogen, and  
 $R_8$  signifies hydrogen or methyl, and  
 $R_9$  signifies hydrogen or methyl, more preferably methyl,  
 with the proviso that at least one of the substituents  $R_6$ ,  $R_7$ ,  $R_8$  and  $R_9$  is methyl.

7. A copolymer according to Claim 1 derived from the polymerization of  
 (a) a cationic monomer of formula (I),



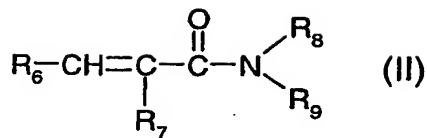
wherein

$R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  are independently from each other hydrogen or methyl,  
 $n$  is 1, 2 or 3, and

$Y$  is a counterion, preferably Cl; Br; I; hydrogensulfate or methosulfate,  
 and

(b) a monomer of formula (II)

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 ISA/EP



wherein

R<sub>6</sub> signifies hydrogen or methyl, more preferably hydrogen,

R<sub>7</sub> signifies hydrogen or methyl, more preferably hydrogen, and

R<sub>8</sub> signifies hydrogen or methyl, more preferably methyl, and

R<sub>9</sub> signifies hydrogen or methyl, more preferably methyl,

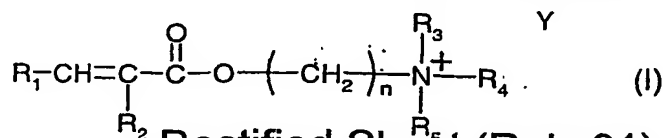
with the proviso that at least one of the substituents R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub> is methyl,

and

- (c) optionally at least one cross-linking agent selected from the group of tetra allyl ammonium chloride; allyl-acrylamides and allyl-methacrylamides; bisacrylamidoacetic acid and/or N,N'-methylene-bisacrylamide, preferably tetra allyl ammonium chloride and/or N,N'-methylene-bisacrylamide.

8. A copolymer according to Claim 7 derived from the polymerization of 20 – 95 wt-% of at least one cationic monomer of formula (I), more preferably of 40 – 90 wt-% of at least one cationic monomer of formula (I), and of 5 – 50 wt-%, more preferably of 10 – 40 wt-% of at least one monomer of formula (II) and of 50 – 500 ppm (based on the total amount of monomers), more preferably of 100 – 300 ppm (based on the total amount of monomers) of at least one compound of the group of tetra allyl ammonium chloride; allyl-acrylamides and allyl-methacrylamides; bisacrylamidoacetic acid and/or N,N'-methylene-bisacrylamide, more preferably tetra allyl ammonium chloride and/or N,N'-methylene-bisacrylamide.

9. A copolymer according to Claim 1 derived from the polymerization of (a) 40 – 90 wt-% of a cationic monomer of formula (I),



Rectified Sheet (Rule 91)  
I S A / E P

wherein

$R_1$  and  $R_2$  are hydrogen,

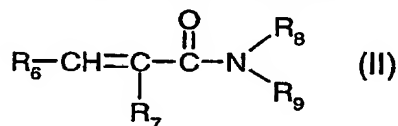
$R_3$ ,  $R_4$  and  $R_5$  are methyl,

$n$  is 1, 2 or 3, preferably 2, and

$Y$  is Cl; Br; I; hydrogensulfate or methosulfate, preferably Cl,

and

(b) 10 – 40 wt-% of a monomer of formula (II)



wherein

$R_6$  and  $R_7$  signify hydrogen,

$R_8$  and  $R_9$  signify methyl,

and

(c) of 100 – 300 ppm of tetra allyl ammonium chloride and/or N,N'-methylene-bisacrylamide.

10. Use of a copolymer according to anyone of the preceding Claims for water- and/or oil-based compositions, preferably for water- and/or oil-based personal care compositions.

11. An oil/water- based personal care composition comprises:  
0.5 – 10 wt-% of at least one copolymer according to Claim 1 - 8  
2 – 25 wt-% of at least one oil-component,  
0 – 25wt-% of at least one adjuvant and/or additive,  
water up to 100 wt-%.

12. A typical oil-based personal care composition comprises  
0.5 – 10 wt-% of at least one copolymer according to Claim 1 - 8  
50 – 99 wt-% of at least one oil-component,  
0 – 25 wt-% of at least one adjuvant and/or additive.